



Multiple Vertebral Compression Fractures Induced by Hypocalcemic Tetany in a Patient with DiGeorge's Syndrome Detected on Bone Scintigraphy

Nir Hod MD¹, Tzvy Bistrizter MD², Yair Mordish MD² and Tifha Horne MD¹

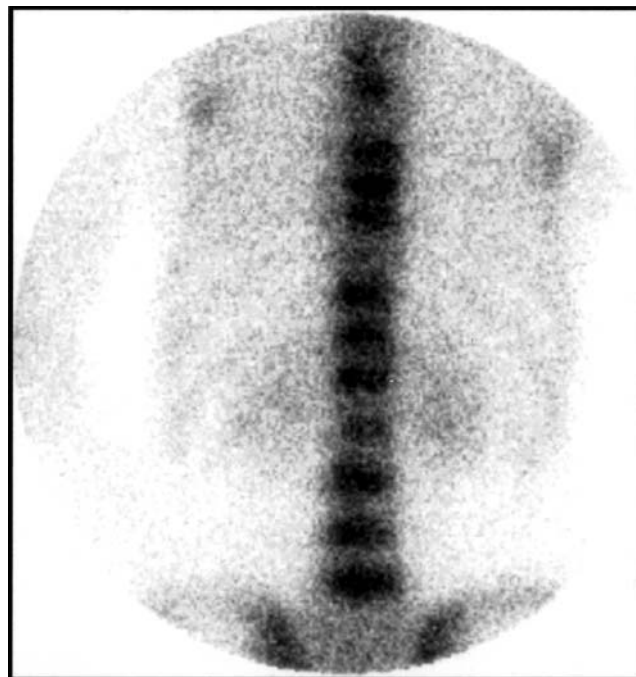
Departments of ¹Nuclear Medicine and ²Pediatrics, Assaf Harofeh Medical Center, Zerifin, Israel

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A 16 year old girl with DiGeorge's syndrome was admitted because of severe back pain. Bone scintigraphy that was performed following two episodes of hypocalcemic tetany (calcium level was 6.2 mg/dl) revealed intensely increased radiotracer uptake in a linear pattern along the width of the vertebrae, involving most of the thoracic and lumbar vertebrae, compatible with multiple vertebral compression fractures throughout the spine [Figure]. X-ray showed several thoracic and lumbar vertebral compression fractures. Bone mineral density in the lumbar spine was decreased to less than the mean value minus 1.6 standard deviation in values from age-matched controls.

DiGeorge's syndrome is a congenital disorder characterized by severe immunodeficiency, congenital cardiac defects, face dysmorphism, and hypoparathyroidism due to failure of parathyroid development, which can result in severe hypocalcemia and may lead to hypocalcemic tetany and seizures. In this unusual case, forceful muscle contractions during the seizure resulted in extensive vertebral compression fractures. Bone mineral density, which was markedly decreased due to impairment of bone mineral turnover of hypoparathyroidism, made this young patient susceptible to vertebral fractures. Electroconvulsive therapy in psychiatry and seizures from epilepsy are also uncommonly reported causes of compression fracture of the spine without any external trauma [1-5].



Bone scan of the thoracic and lumbar regions showing intense radiotracer uptake in multiple vertebral compression fractures throughout the spine.

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Correspondence: Dr. T. Horne, Dept. of Nuclear Medicine, Assaf Harofeh Medical Center, Zerifin 70300, Israel.
Phone: (972-8) 977-8480,
Fax: (972-8) 977-9750
email: thorn@asaf.health.gov.il